

ART. XVI.—*The Sciopticon.*

By W. M. COOKE.

[Read 17th May, 1875.]

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ART. XVII.—*Notes concerning the Phenomena of the Approach and Recession of Bodies under the Influence of Radiant Energy.*

By ALFRED MICA SMITH, B.Sc.

[Read 14th June, 1875.]

[ABSTRACT.]

The subject of this paper, the author said, is far from being a new one, having engaged the attention of several physicists of repute during the last eighty years. It has recently been brought very prominently before the scientific public by the elaborate experiments of Mr. William Crookes, F.R.S., who has attacked the question of the causation of the motions concerned with persevering industry, and with the aid of refined apparatus of a character wholly beyond the reach of the earlier investigators. Mr. Crookes' results and the expression of his views have led to the performance of experiments and the expression of theoretical views, on the part of Professor Osborne Reynolds, of The Owens College, Manchester; Professor Reynolds' views and deductions appearing to differ widely from those of Mr. Crookes. The question of the causation of these remarkable motions remains therefore yet an open one. The quantities dealt with are small in amount; the experimental means are delicate and susceptible of influence from very slight disturbing causes; the whole question is subtle, bordering closely on the confines of the unknown in molecular physics. But the subject, although a difficult one, is also confessedly one of high moment and great interest, and as after many experiments the author had arrived at certain results, some of which appeared to be not wholly devoid of interest, he ventured to select a few therefrom to place before the Society, in the hope that they might contribute some small amount of collateral testimony to be added to that already adduced. It was further added,